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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,839	08/25/2003	Bruno Rijsman	1014-066US01/JNP-0313	2879
28863 7590 08/30/2007 SHUMAKER & SIEFFERT, P. A. 1625 RADIO DRIVE SUITE 300 WOODBURY, MN 55125			EXAMINER NGUYEN, HANH N	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 08/30/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/647,839

Applicant(s)

RIJSMAN, BRUNO

Examiner

Hanh Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Response filed 6/29/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-19, 21-27, 32-37 and 39-51 is/are rejected.
- 7) ☒ Claim(s) 7, 20, 28, 38 and 52 is/are objected to.
- 8) ☒ Claim(s) 29-31 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/25/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application  |
| Paper No(s)/Mail Date <u>12/29/03</u>  | 6) <input type="checkbox"/> Other: _____                           |

## **DETAILED ACTION**

### ***Response to Amendment***

In response to the amendment filed on 6/29/07, claims 1-28, 32-54 refer to re-establishing a routing communication session in accordance with a routing protocol in the event of a session failure. Therefore, claims 1-28, 32-54 refer to the same subject matter.

However, claims 29-31 refer to communicating restart information, restart time periods between a first router and a second router and renegotiate the second restart time to a value upon recovery from a failure. The subject matter of claims 29-31 is completely different from that of claims 1-28 and 32-54 addressed above. In response to an agreement by applicant during a telephone made on 8/22/07, claims 29-31 have been withdrawn. Therefore, claims 1-28 and 32-54 are now under consideration.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 13, 45, it is not clearly addressed by "extracts updated routing information from the routing communication".

### ***Claim Rejections - 35 USC § 101***

Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Regarding claim 22, the instructions comprised in a computer readable medium is not executed by a processor to perform the claimed limitations. Therefore, the claimed limitations are not statutory. Claims 23-28 are rejected because they depend on claim 22 respectively.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-12, 14-19, 21-27, 32-37, 39-44, 46-51, 53 and 54 are rejected under 35 USC 103(a) as being unpatentable over Ho et al. ( US Pat. 6,910,148 B1).

In claims 1, 10, 22, 32, 41, 42 and 54, Ho et al. discloses a method comprising establishing a routing communication session (see fig.1; col.6, lines 10-20; router 104 maintains consistent routing protocol information with neighbor nodes) in accordance with a routing protocol (see col.7, lines 35-45; fig.2; routing protocols 220 OSPF, IS-IS, RIP and BGP) between a primary routing control unit (fig.1; col.6, lines 20-25; active controller 910) of a first router ( router 104; fig.1) and a second router (peer nodes 102A and 102B), wherein the routing communication session is established to have a first restart time in the event of a session failure ( col.6, lines 15-20; node 104 determines neighbors establishment by setting a certain period of time to receive a response to a hello packet transmitted); and reestablishing the routing communication session with a secondary routing control unit of the first router upon failure of the primary routing control unit (col.6, lines 25-35; when the active controller 910 fails, the standby controller 950 resumes protocol sessions with peer nodes before a timeout period);

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wherein the routing communication session is reestablished to have a second restart time (a timeout period). Ho et al. does not disclose explicitly whether a second restart time (a timeout period) is less than the first restart time (a certain period of time).

However, Ho et al. discloses, in fig.3, col.8, lines 10-45, that node 104 performs a fast switchover within a few milliseconds (col.10, lines 10-15) from active controller to the standby controller such as protocol session will not be dropped and convergence time is reduced. Ho et al. further discloses in col.23, lines 37-45, that if the active card 910 fails, standby card 950 can resume all routing protocol sessions of the active card 910 such that the standby card 950 resumes operation before any of the routing protocol session states times out.

It is clearly indicated that the reduced convergence time or the time needed to resume protocol routing session taken the standby controller (second restart time) is less than the first restart time (a certain period of time) the hello packet is being transmitted to neighbors. Therefore, it would have been obvious to the router 104 of Ho et al. to reestablish routing protocol session with the secondary controller 950 when the primary controller 910 fails such that a second restart time (a timeout period) is less than the first restart time (a certain period of time). The motivation is applied to transmit multimedia information via routers. Fast switchover will be done in realtime as taught by Ho et al. in abstract.

In claims 8 and 39, the limitations of these claims have been addressed in claim 1.

In claims 9, 21, 40 and 53, the limitations of these claims have been addressed in claim

1.

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In claims 15, 47, Ho et al. discloses one or more interface cards receive and send data flows to and from a network ( see fig.1, active controller/ active card 910; standby controller/card 950 perform protocol session with peer nodes 102A and 102B; col.6, lines 20-30).

\*In claims 2, 11, 23, 33 and 43, Ho et al. discloses automatically renegotiating the second restart time to the first restart time upon recovery of the primary routing control unit (

Claims 4 and 35 have been addressed in claim 1 because, node 104 and 102 exchange transaction about routing protocol ( see col.10, lines 55-65); and reducing the second restart time from the first restart time was addressed in claim 1..

In claims 3, 12, 24, 34, 44, Ho et al. discloses preserving forwarding information in a state of the first router prior to failure of the primary routing control unit ( see fig.3, step 306; standby card/controller 950 resumes operation of the current state of active card/controller 910 prior to failure; col.8, lines 32-45); and forwarding traffic in accordance with the preserved forwarding information while reestablishing the routing communication session (see col.24, lines 25-35; in the event of a failure to the active controller 910, router 104 switchovers its operation to standby controller 950 and continues routing traffic because the standby controller generates a valid forwarding table of each routing protocol).

In claims 5, 18, 26, 36, 50 and 51, Ho et al. discloses monitoring the routing session between the primary routing control unit and the second router to determine whether the second router supports dynamic renegotiation ( see col.5, line 55 to col.6, line 20; nodes 104, 102A, 102B always maintain consistent routing protocol information such as OSPF, IS-IS, BGP).

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In claims 6, 19, 25 and 37, Ho et al. discloses receiving information from the second router that identifies one or more routing protocol capabilities supported by the second router (see fig.6, col.10, lines 55-65; peer node 102 and node 104 require transaction update so that routing update must also be made in both active controller, standby controller and peer node 102); and identifying the second router as supporting dynamic regeneration based on the capability information ( see fig.4A, col.8, lines 60 to col.9, line 10; protocol information in node 102 and node 104 must be consistent to ensure redundancy).

In claims 2, 11, 23, 33 and 43, Ho et al. does not disclose automatically renegotiating the second restart time to the first restart time upon recovery of the primary routing control unit. However, it would be a well-known skills in the art such as OSPF, IS-IS, RIP routing protocol described in Ho et al. to automatically renegotiate from the second restart time back to the first restart time when the active controller 910 is recovered.

In claims 16, 46 and 48, Ho et al. discloses a forwarding engine comprising a forwarding component ( See fig.4A, col.8, lines 60-67; routing table 403A generates FIB.432).

***Allowable Subject Matter***

Claims 7, 20, 28,38 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 7, 20, 28, 38 and 52, the prior art fails to disclose initially reestablishing the routing communication session to have a third restart time that is substantially

the same as the first restart time; and dynamically renegotiating the third restart time to the second restart time upon identifying the second router supporting dynamic renegotiation.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Frey ( US pat. 5,848,128);

Bader et al. ( US Pat. 6,542,934 B1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Thursday 8:30 AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hanh Nguyen



**HANH NGUYEN  
PRIMARY EXAMINER**